Center Independent Research & Development: JPL IRAD

Alkaline Exchange Membrane (AEM) for High-Efficiency Fuel Cells, Electrolyzers and Regenerative Fuel Cell Systems

Completed Technology Project (2012 - 2013)

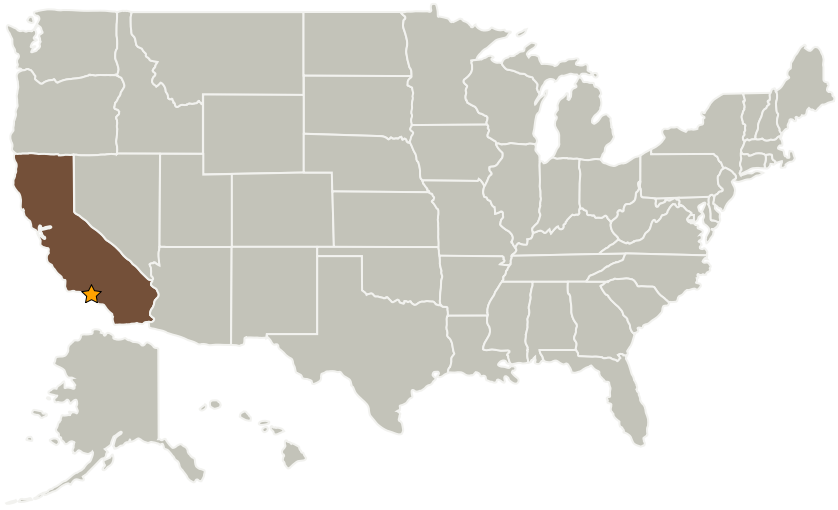
Project Introduction

Develop an alkaline exchange membrane (AEM)for use as a polymer electrolyte in both fuel cell and electrolyzer systems. The ultimate goal in AEM development is to fabricate fuel cell systems required for future human space missions.

Anticipated Benefits

Future human space missions will benefit from advanced fuel cell systems.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Jet Propulsion Laboratory(JPL)	Lead Organization	NASA Center	Pasadena, California

Primary U.S. Work Locations
California

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Organizational Responsibility

Responsible Mission Directorate:

Mission Support Directorate (MSD)

Lead Center / Facility:

Jet Propulsion Laboratory (JPL)

Responsible Program:

Center Independent Research & Development: JPL IRAD

Project Management

Program Manager:

Fred Y Hadaegh

Project Manager:

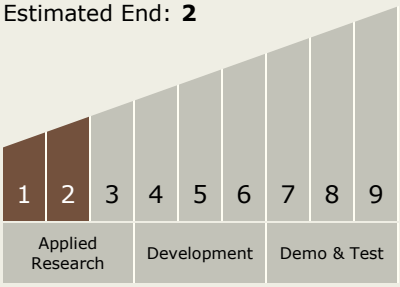
Jonas Zmuidzinas

Principal Investigator:

Thomas I Valdez

Technology Maturity (TRL)

Start: **1**
Estimated End: **2**



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Technology Areas

Primary:

- TX03 Aerospace Power and Energy Storage
  - TX03.2 Energy Storage
    - TX03.2.2 Electrochemical: Fuel Cells